

REMARKS/ARGUMENTS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 1-7 and 9-21 are pending in the present application. Claims 1 and 18 are amended by the present amendment.

In the outstanding Office Action, Claims 1-5, 10, and 15-18 were rejected under 35 U.S.C. § 103(a) as unpatentable over Tomita et al. (U.S. Patent Application Publication No. 2002/0031363, herein “Tomita”) in view of Kawabata (Japanese Patent Application JP61-205968) and Kasahara et al. (Japanese Patent Application JP 02-306262, herein “Kasahara”); Claim 6 was rejected under 35 U.S.C. § 103(a) as unpatentable over Tomita, Kawabata, Kasahara, and Iimura et al. (U.S. Patent No. 6,284,424, herein “Iimura “); Claims 6 and 7 were rejected under 35 U.S.C. § 103(a) as unpatentable over Tomita in view of Kawabata, and Honma et al. (U.S. Patent No. 5,214,478, herein “Honma”); Claim 9 was rejected under 35 U.S.C. § 103(a) as unpatentable over Tomita in view of Kawabata, Kasahara, and Finn et al. (U.S. Patent No. 6,733,943, herein “Finn”); Claims 11 and 12 were rejected under 35 U.S.C. § 103(a) as unpatentable over Tomita, Kawabata, Kasahara, and Wada (Japanese Patent Application JP 63-191157); Claim 19 was rejected under 35 U.S.C. § 103(a) as unpatentable over Tomita in view of Kawabata and Wada; Claims 13 and 14 were indicated as allowable if rewritten in independent form; and Claims 20 and 21 were allowed.

Applicants thank the Examiner for the indication of allowable subject matter. However, in view of the present amendments, Claims 13 and 14 are believed to patentably distinguish over the applied art, and thus, Claims 13 and 14 are maintained in dependent form.

In view of the rejections of the claims on the merits, independent Claims 1 and 18 are amended to more clearly recite that a charging unit applies an AC voltage to a pressure belt

such that alternating regions of the pressure belt have alternate electric charges and the alternating regions alternate in a direction that the pressure belt advances. The claim amendments find support in Figure 3 and its corresponding description in the specification. No new matter has been added.

Briefly recapitulating, amended Claim 1 is directed to a fixing device in an image forming apparatus. The fixing device includes a pressure belt that holds a recording medium by electrostatic force, a fixing belt that fixes a toner image on the recording medium, and a charging unit that applies an AC voltage to the pressure belt such that alternating regions of the pressure belt have alternate electric charges. The alternating regions alternate in a direction that the pressure belt advances.

In a non-limiting example, Figure 3 shows the pressure belt 15, the fixing belt 13, and the charging unit 19 that produces positive and negative electric charges in alternate regions of the pressure belt 15. Independent Claim 18 has been amended similar to Claim 1.

Turning to the applied art, the outstanding Office Action recognizes on page 3, first full paragraph, that Tomita does not teach or suggest a pressure belt that holds a recording medium by electrostatic force and a charging unit that applies an AC voltage to the pressure belt.

To cure one of the above-noted deficiencies of Tomita, the outstanding Office Action relies on Kawabata for teaching a corotron 16a provided on a periphery of a pressure roller 15 at a location prior to a contact between the pressure roller 15 and a recording medium 5, and a corotron 16b positioned at a location where the recording medium 5 is peeled off from the surface of the pressure roller 15. However, neither corotron applies an AC voltage to the pressure belt as required by independent Claims 1 and 18.

The outstanding Office Action relies on Kasahara for disclosing a charger 129 that superimposes an AC current on a DC current to charge a belt 107 before a transfer sheet S is

carried on the belt 107, and the outstanding Office Action indicates that Figure 39 of Kasahara is relevant in this regard.

However, an analysis of Figure 39 of Kasahara and also of the other figures of Kasahara shows that the belt 107 is not electrically charged but rather toner particles are electrically charged by the charger 129. Further, Applicants note that Kasahara shows in Figure 39 that the toner particles are electrically negative on a lower side of the belt 107 and the particles are changed to electrically positive by the charger 129 on the upper part of the belt 107. Thus, the charger 129 of Kasahara does not charge the pressure belt such that alternating regions of the pressure belt have alternate electric charges and the alternating regions alternate in a direction that the pressure belt advances, as required by amended Claims 1 and 18.

In this regard, it is noted that another charger 108 in Kasahara changes the negative polarity of the lower part of the belt 107 to a positive polarity on the upper part but no alternating regions with alternating electric charges on the belt 107 are formed before the transfer sheet S contacts the belt 107.

Accordingly, it is respectfully submitted that independent Claims 1 and 18 and each of the claims depending therefrom patentably distinguish over Tomita, Kawabata, and Kasahara, either alone or in combination.

Regarding independent Claim 19, this claim recites, *inter alia*, that a neutralizing unit neutralizes electric charges on the pressure belt and the recording medium, after the toner image has been fixed to the recording medium.

The outstanding Office Action states in the last paragraph on page 6 that Tomita does not teach or suggest a neutralizing unit that applies an alternating voltage to the recording medium.

The outstanding Office Action relies on Kawabata for teaching a fixing device that uses a roller 15 that is electrified by a corotron 16a, provided on one side of the roller 15, and a corotron 16b provided on another side of the roller 15, and asserts that the corotron 16b acts like the claimed neutralizing unit.

However, Applicants disagree with this assertion about Kawabata for the following reasons. Kawabata discloses in the English Abstract provided by the outstanding Office Action that a positive charge is generated on the form 5 and the form 5 is held electrostatically on the surface of the roller 15. "When the fixing operation is ended, a charge of - is supplied to the firm [sic] by the corotron 16b at a position where the form is peeled off from the surface of the roller."

Thus, the corotron 16b of Kawabata does not neutralize electric charges on the pressure belt but rather electrically charges the form 5 as also shown in Figures 4 and 5. The outstanding Office Action relies on Wada for teaching an AC charger. However, Wada does not cure the deficiencies of Kawabata disclosed above.

Accordingly, it is respectfully submitted that independent Claim 19 patentably distinguishes over Tomita, Kawabata, and Wada, either alone or in combination.

Consequently, in light of the above discussion and in view of the present amendment, the present application is believed to be in condition for allowance and an early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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